

REMARKS

Claim 18 has been amended to correct the typographical error pointed out in the Office Action.

Claims 9, 10, 14, 15, 20, 21, 25, 26, 30, 31, 35, 36, 46, 47, 50, 51, 55, and 56 have been indicated as containing allowable subject matter and are not discussed below.

Remaining claims 1-8, 11-13, 16-19, 22-24, 27-29, 32-34, 37-45, 48, 49, 52-54, and 57-67 have been rejected under §102 as being anticipated by Beers et al. (US 5,578,939). The rejection of these claims is traversed below. Reconsideration and allowance of these claims is respectfully requested.

Claims 1-8, 11-13, and 16-18 have been rejected as being anticipated under §102 by Beers et al. Beers discloses a line driver/receiver circuit utilizing impedance matching techniques. However, Beers does not disclose an apparatus using pseudo-differential voltage signaling as recited by these claims.

As stated in the specification, pseudo-differential signaling involves:

[A] plurality of pseudo-differential data signal voltages, referred to herein simply as signal voltages, and a single, common reference voltage. These signals are conducted on corresponding pseudo-differential signal lines 106 and a reference line 108.

The pseudo-differential data signals represent values in terms of relationships between the signal voltages and the common reference voltage.

Page 5, lines 14-19 of the specification.

Claim 1 not only recites in its preamble an apparatus that uses pseudo-differential voltage signaling, but also recites elements that form a pseudo-differential receiving system. Specifically, it recites "a plurality of signal receivers associated respectively with a plurality of signal voltages," and that the

1 signal receivers evaluate the signal voltages and a "buffered voltage"—"derived at  
2 least in part from [an] undistributed reference voltage"—to produce an output  
3 voltage.

4 Beers does not utilize pseudo-differential voltage signaling as recited in  
5 claim 1. The circuit of Beers' Fig. 1, for example, shows a single  
6 transmitter/receiver pair, a single signal 24 running between them, and a single  
7 reference line 22. Beers' Fig. 2 shows the same thing. Thus, reference line 22 is  
8 associated with only a single transmission line. Beers does not show "a plurality  
9 of signal receivers associated respectively with a plurality of signal voltages," or  
10 that such signal receivers utilize the reference voltage of a pseudo-differential  
11 system. Specifically, Beers does not show a plurality of signal receivers that  
12 evaluate their associated signal voltages and the buffered voltage to produce an  
13 output voltage, as recited in Claim 1.

14 Beers does not show each and every element of claim 1. Accordingly, the  
15 §102 rejection of claim 1 is unfounded and should be withdrawn.

16 Claims 2-8, 11-13, and 16-18 depend from claim 1 and are allowable  
17 because they depend from an allowable base claim, as well as for the additional  
18 elements recited therein which are not shown in the cited prior art.

19  
20 Claims 19, 22-24, and 27-28 have been similarly rejected as being  
21 anticipated by Beers. However, independent claim 19 recites a pseudo-differential  
22 signaling system as follows:

23 a reference input that receives a common reference voltage;  
24 a plurality of signal inputs configured to receive pseudo-differential  
25 signal voltages that represent values in terms of relationships between

1 the pseudo-differential signal voltages and the common reference  
2 voltage; . . .

3 As already discussed, Beers does not show a plurality of signal voltages nor  
4 a reference voltage that is common to such signal voltages. Accordingly, claim 19  
5 is allowable along with its dependent claims 22-24 and 27-28.

6 Claims 29, 32-34, and 37-38 have also been rejected as being anticipated  
7 by Beers. Again, however, independent claim 29 recites pseudo-differential signal  
8 voltages that represent values "in terms of relationships between the pseudo-  
9 differential signal voltages and the common reference voltages." As discussed  
10 above, Beers does not disclose these elements. Accordingly, claim 29 is allowable  
11 along with dependent claims 32-34 and 37-38.

12  
13 Claims 39-45, 48-49, and 52-53 have been rejected under the same  
14 rationale as already discussed. However, claim 39 recites a reference voltage and  
15 a plurality of signal voltages. As already discussed, Beers does not disclose a  
16 plurality of signal voltages. Accordingly, claims 39-45, 48-49, and 52-53 are  
17 allowable over the cited prior art.

18  
19 Claims 54 and 57-58 have been rejected under the same rationale as  
20 already discussed. However, claim 54 recites "an apparatus that uses pseudo-  
21 differential voltage signaling" and a plurality of signal voltages that is evaluated  
22 with an "undistributed reference voltages" and a "distributed reference voltage".  
23 Beers does not disclose pseudo-differential voltages signaling such as this.  
24 Accordingly, claims 54 and 57-58 are allowable over the cited prior art.  
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